

Claims

1. A heat-exchange fin, particularly for cooling,  
consisting of a strip (30) comprising a first heat-  
5 exchange zone (18), intended to collaborate with tubes  
of a first heat exchanger, and a second heat-exchange  
zone (20), intended to collaborate with tubes of a  
second heat exchanger, characterized in that said strip  
comprises a zone of weakness (22) able to allow it to  
10 be parted into a first element (64) comprising said  
first heat-exchange zone (18) and a second element (66)  
comprising said second heat-exchange zone (20).

2. The fin as claimed in claim 1, in which said strip  
15 (30) has a corrugated shape and said zone of weakness  
consists of a straight slot interrupted at some of the  
faces of the corrugations by at least one residual link  
(34) provided between said first and said second heat-  
exchange zones.

20 3. The fin as claimed in claim 2, in which the faces  
of the corrugations have a height H and said residual  
link, provided mid-way along, has a height h of between  
H/5 and H/30.

25 4. A heat-exchange module comprising at least a first  
and a second heat exchanger (1, 2), each exchanger  
comprising fluid-circulation tubes (5, 10), generally  
flat, uniformly spaced, having a width, characterized  
30 in that it comprises fins as claimed in any one of the  
preceding claims, said first and second elements (64,  
66) of said fins, designed separated from each other,  
being associated with the tubes (5, 10) of the first  
and of the second exchanger respectively.

35 5. The heat-exchange module as claimed in claim 4,  
furthermore comprising at least one cheek (40, 46)  
assembled by brazing with the first heat-exchange zone  
(18) and with the second heat-exchange zone (20).

6. The heat-exchange module as claimed in claim 5, in which the tubes (5, 10) of the exchangers are offset from one another in a direction orthogonal to said tubes and the cheeks (40) have an equivalent offsetting level between the first and second exchangers (1, 2).

7. The heat-exchange module as claimed in claim 4, in which the cheeks (46) comprise two parts (48; 50) joined together by deformable links (52) and assembled by brazing to the first (18) and to the second (20) heat-exchange zones respectively.

8. The heat-exchange module as claimed in claim 7, in which one of the parts (50) of the cheek assembled with one of the heat-exchange zones (20) comprises at least one protrusion (68) secured by brazing to the other heat-exchange zone (18).

9. A method of producing a heat-exchange module comprising at least two heat exchangers (1, 2), each exchanger comprising fluid-circulation tubes (5, 10), generally flat and uniformly spaced, having a width, and cooling elements (64, 66) associated with these tubes (5, 10), characterized in that:

- strips of sheet metal (30) are provided,
- the strips of sheet metal (30) are weakened (22) in such a way as to limit a first heat-exchange zone (18) intended to be associated with the tubes of the first exchanger (5) and a second heat-exchange zone (20) intended to be associated with the tubes (10) of the second heat exchanger (2), this weakening leaving a residual link (34) remaining between the first heat-exchange zone (18) and the second heat-exchange zone (20),
- the strips of sheet metal (3) are associated with the tubes (5 and 10) of the exchangers (1, 2),
- the residual links (34) between the first heat-

exchange zone (18) and the second heat-exchange zone (20) are broken so as to separate the zones entirely,

- the exchangers (1, 2) are assembled by brazing.

5

10. The method as claimed in claim 9, in which the operation of breaking the residual links is performed at the time of the operation of associating the strips of sheet metal with the tubes.

10

11. The method as claimed in one of claims 9 and 10, in which the strips of sheet metal (30) are shaped in such a way as to give them a corrugated shape, the strips of sheet metal (30) being associated with the tubes of the heat exchangers by introducing strips of sheet metal between the tubes (5, 10).

15

12. The method as claimed in claim 11, in which said residual link is formed by forming a discontinuous slot in the strips of sheet metal (30) as they are being given their corrugated shape.

20

13. The method as claimed in one of claims 9 to 12, in which the residual links (34) are broken by moving the exchangers (1, 2) one relative to the other.

25

14. The method as claimed in any one of claims 9 to 13, in which a cheek (44, 46) common to the two exchangers is placed facing the first (18) and second (20) heat-exchange zones and said exchangers (1, 2) are assembled with one another via said cheek at the time of brazing.

30

15. The method as claimed in any one of claims 9 to 13, in which said exchangers are secured to one another in the form of a module, after brazing, using added-on connecting means.

35